Remarks

By this amendment, claims 1 and 24 have been amended. Claims 1-39 remain pending. Support for the instant amendments is provided throughout the as-filed application. Thus, no new matter has been added. In view of the following comments, allowance of all the claims pending in the application is respectfully requested.

Rejection Under 35 U.S.C. §103

Claims 1-8, 10-12, 14-15, 24-31, 33-35 and 37-38 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Japanese Patent Application Publication No. JP 11-040657A to Sato et al. ("Sato") in view of U.S. Patent No. 6,806,943 to Barringer ("Barringer") and further in view of U.S. Patent Application Publication No. 2003/0197841 to Araki et al. ("Araki"). Applicant traverses.

Claim 1

Applicant submits that the cited portions of Sato, Barringer and Araki do not appear to at least disclose or teach a lithographic apparatus wherein, *inter alia,* the support is associated with a clamping device which is arranged to subject a second side of the patterning device to at least one second force, at least when the support is accelerated, and to dynamically vary the at least one second force in an automatic fashion depending on a magnitude of motion of the patterning device, as recited in claim 1.

Applicant submits, as acknowledged in the Office Action, that the cited portions of Sato fail to disclose or teach a clamping device arranged to subject a second side of the patterning device to at least one second force,

at least when the support is accelerated, and to dynamically vary the at least one second force in an automatic fashion.

Even assuming *arguendo* that the cited portions of Sato, Barringer and Araki are properly combinable (which Applicant does not concede), the cited portions of Araki and Barringer do not appear to address all of the deficiencies of the cited portions of Sato. In particular, the cited portions of Araki and Barringer do not appear to disclose or teach, *inter alia*, the support is associated with a clamping device which is arranged to subject a second side of the patterning device to at least one second force, at least when the support is accelerated, and to dynamically vary the at least one second force in an automatic fashion depending on a magnitude of motion of the patterning device, as recited in claim 1.

For example, the cited portions of Barringer do not appear to describe that clamp 14 subjects a second side of the patterning device to at least one second force and dynamically varies the at least one second force in an automatic fashion depending on a magnitude of motion of the patterning device because it appears that clamp 14 applies a fixed spring compression force and does not appear to adjustable either manually or automatically. Therefore, the force that clamp 14 provides is neither automatic since it can't be adjusted in any manner, nor dynamic since the spring compression force remains fixed. Consider, e.g., the embodiments of Figures 4 and 5 of the present application.

Further, the cited portions of Araki do not appear to describe that the reticle clamps subjects a second side of the patterning device to at least one second force and dynamically varies the at least one second force in an automatic fashion depending on a magnitude of motion of the patterning device because it appears that the reticle clamps of Araki apply a fixed force and do not appear to dynamically vary the applied force in an automatic

fashion depending on a magnitude of motion of the patterning device. Therefore, the force that the reticle clamps of Araki provide do not appear to be dynamic in an automatic fashion depending on a magnitude of motion of the patterning device since it appears to be only fixed and thus not dynamic in an automatic fashion as claimed. Consider, e.g., the embodiments of Figures 4 and 5 of the present application.

Claim 24

Applicant submits that the cited portions of Sato, Barringer and Araki do not appear to at least disclose or teach a device manufacturing method comprising, *inter alia*, subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is accelerated, the at least one second force being dynamic in an automatic fashion depending on a magnitude of motion of the patterning device, as recited in claim 24.

Applicant submits, as acknowledged in the Office Action, that the cited portions of Sato fail to disclose or teach subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is accelerated, the at least one second force being dynamic in an automatic fashion depending on a magnitude of motion of the patterning device.

Even assuming *arguendo* that the cited portions of Sato, Barringer and Araki are properly combinable (which Applicant does not concede), the cited portions of Araki and Barringer do not appear to address all of the deficiencies of the cited portions of Sato. In particular, the cited portions of Araki and Barringer do not appear to disclose or teach, *inter alia*, subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is

accelerated, the at least one second force being dynamic in an automatic fashion depending on a magnitude of motion of the patterning device, as recited in claim 24.

For example, the cited portions of Barringer do not appear to appear to describe that clamp 14 subjects a second side of the patterning device to at least one second force, the at least one second force being dynamic in an automatic fashion depending on a magnitude of motion of the patterning device because it appears that clamp 14 applies a fixed spring compression force and does not appear to adjustable either manually or automatically. Therefore, the force that clamp 14 provides is neither automatic since it can't be adjusted in any manner, nor dynamic since the spring compression force remains fixed. Consider, e.g., the embodiments of Figures 4 and 5 of the present application.

Further, the cited portions of Araki do not appear to describe that the reticle clamps subjects a second side of the patterning device to at least one second force, the at least one second force being dynamic in an automatic fashion depending on a magnitude of motion of the patterning device because it appears that the reticle clamps of Araki apply a fixed force. That is, the force that the reticle clamps of Araki provide do not appear to be dynamic in an automatic fashion depending on a magnitude of motion of the patterning device since it appears to be only fixed and thus not dynamic in an automatic fashion as claimed. Consider, e.g., the embodiments of Figures 4 and 5 of the present application.

For at least these reasons, the rejection of claims 1 and 24 should be withdrawn. Claims 2-8, 10-12, 14-15, 25-31, 33-35, 37-38 depend from claims 1 and 24 and therefore are allowable over the cited portions of Sato,

Barringer and Araki for the reasons noted above with respect to claims 1 and 24 respectively, as well as for the features they recite individually.

Claims 16, 17, 21-23 and 39 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sato in view of U.S. Patent Application Publication No. 2004/0046947 to Yuan et al. ("Yuan") and further in view of U.S. Patent No. 5,727,685 to Laganza et al. ("Laganza"). Applicant traverses.

Claim 16

Applicant submits that the cited portions of Sato, Yuan and Laganza do not appear to at least disclose or teach a support constructed to support a patterning device which is capable of imparting a radiation beam with a pattern in its cross-section to form a patterned radiation beam comprising wherein, *inter alia*, the support is associated with a clamping device which is releasably attached to the support and arranged to subject a second side of the patterning device, extending in a plane that is non-coinciding with the first side, to an additional clamping force, at least when the support is accelerated, as recited in claim 16.

Applicant submits, as acknowledged in the Office Action, that the cited portions of Sato fail to disclose or teach the support is associated with a clamping device which is releasably attached to the support and arranged to subject a second side of the patterning device, extending in a plane that is non-coinciding with the first side, to an additional clamping force, at least when the support is accelerated.

Even assuming *arguendo* that the cited portions of Sato, Yuan and Laganza are properly combinable (which Applicant does not concede), the cited portions of Yuan and Laganza do not appear to address all of the

deficiencies of the cited portions of Sato. In particular, the cited portions of Yuan and Laganza do not appear to disclose or teach, *inter alia*, the support is associated with a clamping device which is releasably attached to the support and arranged to subject a second side of the patterning device, extending in a plane that is non-coinciding with the first side, to an additional clamping force, at least when the support is accelerated, as recited in claim 16.

For example, the Office Action refers to reticle stage 40 and reticle stage base 38 of Yuan. The reticle stage base 38 is merely something on which the reticle stage 40 is supported. Applicant submits that there is nothing analogous about the recited clamping device and the reticle stage base 38. Further, the reticle stage 40 is merely analogous to the recited support of claim 16 and the stage 4 of Sato. Respectfully, the cited portions of Yuan provide no teaching or disclosure to make, e.g., sample holding device 60 of Sato releasably attached to the stage 4 of Sato. Indeed, there is nothing indicating that reticle stage 40 is releasably attached to reticle stage base 38. Consider, e.g., the embodiments of Figures 3, 6, 7 and 8 of the present application.

Further, the Office Action refers to the reticle container of Laganza have corner clamping devices that utilize pins to hold the clamps in place. Respectfully, there appears to nothing in the cited portions of Laganza that teaches or suggests a clamping device that is releasably attached to the recited support. Corner supports 120 of Laganza are attached with pins 126 but there is nothing teaching that corner supports 120 can be released from the container. Rather, corner supports 120 appear to be attached at all times to the container and merely pivot about pins 126. Consider, e.g., the embodiments of Figures 3, 6, 7 and 8 of the present application.

Applicant submits that the term "releasably attached" is generally understood as meaning something that is arranged for fairly easy de-attachment or attachment during normal course of operation. A structure bolted, glued, riveted, etc. onto another structure that has no intention of being removed during normal course of operation but that could be removed through brute force or in exceptional circumstances would not fairly be understood as something being "releasably attached". Otherwise, the term's meaning would eviscerated as nothing in this world is permanently attached to something else in the face of an enormous force.

Further, the Office Action asserts that *Nerwin v. Erlichman* , 168 USPQ 177 (Bd. Pat. App. & Int. 1969) stands for the proposition that "... constructing a formerly integral structure in various elements involves only routine skill in the art." *See* Office Action at page 4. Applicant disagrees. In that case, the Board of Patent Appeals and Interferences (BPAI) was not even presented with any issue regarding skill in the art or obviousness, but rather of description support for interference claims. The BPAI merely stated that just because a certain structure in a disclosure is described as being integral does not mean it cannot be relied upon for teaching multiple claim elements. *See* 168 USPQ at 179. ("The mere fact that a given structure is integral does not preclude its consisting of various elements."). That simply does not support the proposition asserted in the Office Action.

Claim 39

Applicant submits that the cited portions of Sato, Yuan and Laganza do not appear to at least disclose or teach a method comprising, *inter alia*, releasably attaching a clamping device to the support; accelerating the support; and subjecting a first side of the patterning device to at least one first force normal to the direction of the acceleration so that an acceleration

of the patterning device with respect to the support is suppressed by frictional forces occurring at a contact area between the patterning device and the support, as recited in claim 39.

Applicant submits, as acknowledged in the Office Action, that the cited portions of Sato fail to disclose or teach releasably attaching a clamping device to the support.

Even assuming *arguendo* that the cited portions of Sato, Yuan and Laganza are properly combinable (which Applicant does not concede), the cited portions of Yuan and Laganza do not appear to address all of the deficiencies of the cited portions of Sato. In particular, the cited portions of Yuan and Laganza do not appear to disclose or teach, *inter alia*, releasably attaching a clamping device to the support, as recited in claim 39.

For example, the Office Action refers to reticle stage 40 and reticle stage base 38 of Yuan. The reticle stage base 38 is merely something on which the reticle stage 40 is supported. Applicant submits that there is nothing analogous about the recited clamping device and the reticle stage base 38. Further, the reticle stage 40 is merely analogous to the recited support of claim 16 and the stage 4 of Sato. Respectfully, the cited portions of Yuan provide no teaching or disclosure to make, e.g., sample holding device 60 of Sato releasably attached to the stage 4 of Sato. Indeed, there is nothing indicating that reticle stage 40 is releasably attached to reticle stage base 38. Consider, e.g., the embodiments of Figures 3, 6, 7 and 8 of the present application.

Further, the Office Action refers to the reticle container of Laganza have corner clamping devices that utilize pins to hold the clamps in place. Respectfully, there appears to nothing in the cited portions of Laganza that teaches or suggests releasably attaching a clamping device to the recited support. Corner supports 120 of Laganza are attached with pins 126 but

there is nothing teaching that corner supports 120 can be released from the container. Rather, corner supports 120 appear to be attached at all times to the container and merely pivot about pins 126. Consider, e.g., the embodiments of Figures 3, 6, 7 and 8 of the present application.

For at least these reasons, the rejection of claims 16 and 39 should be withdrawn. Claims 17 and 21-23 depend from claim 16 and therefore are allowable over the cited portions of Sato, Yuan and Laganza for the reasons noted above with respect to claim 16, as well as for the features they recite individually.

Claim 18 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sato, Yuan, Laganza and further in view of U.S. Patent No. 4,711,438 to Guarino et al. ("Guarino"). Applicant traverses.

Claim 18 depends from claim 16 and therefore is allowable over the cited portions of Sato, Yuan and Laganza for the reasons noted above with respect to claim 16, as well as for the features it recites.

Even assuming *arguendo* that the cited portions of Sato, Yuan, Laganza and Guarino are properly combinable (which Applicant does not concede), the cited portions of Guarino do not appear to address all of the deficiencies of the cited portions of Sato, Yuan and Laganza. For example, the cited portions of Guarino do not appear to disclose or teach, *inter alia*, the support is associated with a clamping device which is releasably attached to the support and arranged to subject a second side of the patterning device, extending in a plane that is non-coinciding with the first side, to an additional clamping force, at least when the support is accelerated, as recited in claim 16.

For at least these reasons, the rejection of claim 18 should be withdrawn.

Claims 19 and 20 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sato, Yuan, Laganza, Guarino and further in view of U.S. Patent No. 4,795,518 to Meinel ("Meinel"). Applicant traverses.

Claims 19 and 20 depends from claim 18 and therefore are allowable over the cited portions of Sato, Yuan, Laganza, and Guarino for the reasons noted above with respect to claim 18, as well as for the features they recite individually.

Even assuming *arguendo* that the cited portions of Sato, Yuan, Laganza, Guarino and Meinel are properly combinable (which Applicant does not concede), the cited portions of Meinel do not appear to address all of the deficiencies of the cited portions of Sato, Yuan, Laganza, and Guarino. For example, the cited portions of Meinel do not appear to disclose or teach, *inter alia*, the support is associated with a clamping device which is releasably attached to the support and arranged to subject a second side of the patterning device, extending in a plane that is non-coinciding with the first side, to an additional clamping force, at least when the support is accelerated, as recited in claim 16.

For at least these reasons, the rejection of claims 19 and 20 should be withdrawn.

Claims 9 and 32 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sato further in view of U.S. Patent Application Publication No. 2005/0068512 to Shiraishi ("Shiraishi"). Applicant traverses.

Claims 9 and 32 depends from claims 1 and 24 respectively and therefore are allowable over the cited portions of Sato for the reasons noted above with respect to claims 1 and 24 respectively, as well as for the features it recites.

Even assuming *arguendo* that the cited portions of Sato and Shiraishi are properly combinable (which Applicant does not concede), the cited portions of Shiraishi do not appear to address all of the deficiencies of the cited portions of Sato. For example, the cited portions of Shiraishi do not appear to disclose or teach, *inter alia*, the support is associated with a clamping device which is arranged to subject a second side of the patterning device to at least one second force, at least when the support is accelerated, and to dynamically vary the at least one second force in an automatic fashion depending on a magnitude of motion of the patterning device, as recited in claim 1, nor disclose or teach, *inter alia*, subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is accelerated, the at least one second force being dynamic in an automatic fashion depending on a magnitude of motion of the patterning device, as recited in claim 24.

For at least these reasons, the rejection of claims 9 and 32 should be withdrawn.

Claims 13 and 36 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sato further in view of Meinel. Applicant traverses.

Claims 13 and 36 depends from claims 1 and 24 respectively and therefore are allowable over the cited portions of Sato for the reasons noted above with respect to claims 1 and 24 respectively, as well as for the features it recites.

Even assuming *arguendo* that the cited portions of Sato and Meinel are properly combinable (which Applicant does not concede), the cited portions of Meinel do not appear to address all of the deficiencies of the cited portions of Sato. For example, the cited portions of Meinel do not appear to appear to disclose or teach, *inter alia*, the support is associated with a clamping device which is arranged to subject a second side of the patterning device to at least one second force, at least when the support is accelerated, and to dynamically vary the at least one second force in an automatic fashion depending on a magnitude of motion of the patterning device, as recited in claim 1, nor disclose or teach, *inter alia*, subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is accelerated, the at least one second force being dynamic in an automatic fashion depending on a magnitude of motion of the patterning device, as recited in claim 24.

For at least these reasons, the rejection of claims 9 and 32 should be withdrawn.

Conclusion

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

If an extension of time is necessary to prevent abandonment of this application, then such an extension of time is hereby petitioned for under 37 C.F.R. §1.136(a). Any fees required (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 033975 (Ref. No. **81468-0324818**).

Date: July 27, 2009

Respectfully submitted,

By: _____

Jean-Paul G. Hoffman
Registration No. 42,663

Direct: (703) 770-7794
Main: (703) 770-7900
Fax: (703) 770-7901

Pillsbury Winthrop Shaw Pittman LLP
P.O. Box 10500
McLean, Virginia 22102